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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/774,316	02/06/2004	Eric R. Smith	2004B009	8535

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ExxonMobil Chemical Company  
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EXAMINER

HUSON, MONICA ANNE

ART UNIT	PAPER NUMBER
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1732

DATE MAILED: 11/16/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/774,316

Applicant(s)

SMITH ET AL.

Examiner

Monica A. Huson

Art Unit

1732

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 28 August 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 18 and 19 is/are allowed.
- 6) ☒ Claim(s) 1,3-12 and 14-17 is/are rejected.
- 7) ☒ Claim(s) 2 and 13 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 06 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- ☐ Notice of Informal Patent Application
- ☐ Other: \_\_\_\_\_

### **DETAILED ACTION**

This office action is in response to the Amendment filed 28 August 2006.

#### ***Claim Objections***

Claims 5-7 are objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. Since the previous claim (4) includes a range wherein a lower endpoint is 400 ppm, claims 5-7 are now not further limiting as they implicitly include an endpoint of 0 ppm. To be in proper dependent form, claims 5-7 must include the lower endpoint of 400 ppm.

#### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 10 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 10 contains the trademark/trade name IRGANOX. Where a trademark or trade name is used in a claim as a limitation to identify or describe a particular material or product, the claim does not comply with the requirements of 35 U.S.C. 112, second paragraph. See *Ex parte Simpson*, 218 USPQ 1020 (Bd. App. 1982). The claim scope is uncertain since the trademark or trade name cannot be used properly to identify any particular material or product. A trademark or trade name is used to identify a source of goods, and not the goods themselves. Thus, a trademark or trade name does not identify

or describe the goods associated with the trademark or trade name. In the present case, the trademark/trade name is used to identify/describe an antioxidant and, accordingly, the identification/description is indefinite.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –  
(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1 and 3-7 are rejected under 35 USC 102(b) as being anticipated by DeJuneas et al. (U.S. Patent 4,013,622).

Regarding Claim 1, DeJuneas et al., hereafter “DeJuneas,” show that it is known to carry out a method of manufacturing a blow molded article (Column 2, lines 13-14) comprising (a) blow molding a first composition comprising a first polyethylene into a shaped article (Column 1, lines 10-14; Column 2, lines 13-14; Column 3, lines 5-6); (b) perceiving molding defects in the process or molded article (Column 1, lines 14-21, 44-47); and (c) then providing to said process a small amount of a low molecular weight polyethylene glycol (Column 1, lines 47-53).

Regarding Claim 3, DeJuneas shows the process as claimed as discussed above in the rejection of claim 1 above, including a method wherein the amount of polyethylene glycol provided to said process is from about 400 to about 2000 ppm (Column 2, lines 62-67).

Regarding Claim 4, DeJuneas shows the process as claimed as discussed above in the rejection of claim 1 above, including a method wherein the amount of polyethylene glycol added is from about 400 to about 1200 ppm based on the weight of the composition (Column 2, lines 62-67).

Regarding Claim 5, DeJuneas shows the process as claimed as discussed above in the rejection of claim 4 above, including a method wherein the amount of polyethylene glycol added is no more than about 1100 ppm based on the weight of the composition (Column 2, lines 62-67).

Regarding Claim 6, DeJuneas shows the process as claimed as discussed above in the rejection of claim 4 above, including a method wherein the amount of polyethylene glycol added is no more than about 800 ppm based on the weight of the composition (Column 2, lines 62-67).

Regarding Claim 7, DeJuneas shows the process as claimed as discussed above in the rejection of claim 4 above, including a method wherein the amount of polyethylene glycol added is no more than about 700 ppm based on the weight of the composition (Column 2, lines 62-67).

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 8 and 9 are rejected under 35 USC 103(a) as being unpatentable over DeJuneas.

Regarding Claim 8, DeJuneas shows the process as claimed as discussed above in the rejection of claim 1 above, including a method wherein the polyethylene glycol has a molecular weight of about 600 (Column 2, lines 46-50; It is being interpreted that DeJuneas' "about 600" would meet the claimed "about 500")., meeting applicant's claim.

Regarding Claim 9, DeJuneas shows the process as claimed as discussed above in the rejection of claim 1 above, but he does not show the particularly-

claimed melt index. However, it is well established that proportions or values are critical only when they involve difference in kind rather than in degree. *In re Touvay et al.* 121 USPQ 265. Therefore, it would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made to select any applicable melt index as a characteristic of the additive during DeJuneas' method in order to satisfy specific end-use requirements.

Claims 11-12 and 16-17 are rejected under 35 USC 103(a) as being unpatentable over DeJuneas, in view of Duchesne et al. (U.S. Patent 4,855,360).

Regarding Claim 11, DeJuneas shows that it is known to carry out a method of reducing melt defects in the blow molding of a composition (Column 2, lines 13-14) comprising polyethylene, said method comprising incorporating a small amount of a low molecular weight polyethylene glycol in said composition prior to said blow molding to provide a new composition a new composition and then blow molding said new composition (Column 1, lines 44-53). DeJuneas does not specifically show using HDPE as the starting composition. Duchesne et al., hereafter "Duchesne," show that it is known to carry out a method wherein HDPE is modified to reduce melt defects (Column 3, lines 39-42). It would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made to take advantage of the high density properties of the polymer.

Regarding Claim 12, DeJuneas shows the process as claimed as discussed above in the rejection of claim 11 above, including a method wherein the amount of polyethylene glycol added is from about 400 to about 1200 ppm based on the weight of the composition (Column 2, lines 62-67), meeting applicant's claim.

Regarding Claim 16, DeJuneas shows the process as claimed as discussed above in the rejection of claim 11 above, but he does not show using

a specific polyethylene glycol. Duchesne shows that it is known to carry out a method wherein said polyethylene glycol is PEG-400 (Column 6, lines 35-37). It would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made to use Duchesne's PEG-400 as that in DeJuneas' molding process in order to take advantage of the specific melt-altering properties of PEG-400.

Regarding Claim 17, DeJuneas shows the process as claimed as discussed above in the rejection of claim 11 above, but he does not show the particularly-claimed melt index. However, it is well established that proportions or values are critical only when they involve difference in kind rather than in degree. *In re Touvay et al.* 121 USPQ 265. Therefore, it would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made to select any applicable melt index as a characteristic of the additive during DeJuneas' method in order to satisfy specific end-use requirements.

Claims 14 and 15 are rejected under 35 USC 103(a) as being unpatentable over DeJuneas and Duchesne, further in view of Mills (U.S. Patent 4,504,615).

Regarding Claim 14, DeJuneas shows the process as claimed as discussed above in the rejection of claim 11 above, but he does not show using an antioxidant in his composition. Mills shows that it is known to carry out a method wherein a new composition is formed using an antioxidant selected from hindered phenolics (Abstract). Mills and DeJuneas are combinable because they are concerned with a similar technical field, namely that of methods of modifying polymers per desired specifications. It would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made to use Mills' hindered phenolics in DeJuneas' polyethylene in order to stabilize the neat polyethylene (See Mills, Column 1, lines 42-43).

Regarding Claim 15, DeJuneas shows the process as claimed as discussed above in the rejection of claim 11 above, including adding polyethylene glycol to a polyethylene (Column 1, lines 66-68). DeJuneas does not specifically show using HDPE. Duchesne shows that it is known to carry out a method wherein HDPE's are modified according to end-use specifications (Column 2, lines 1-7; Column 3, lines 39-42). It would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made to use HDPE as the polyethylene in DeJuneas' molding process in order to take advantage of the high density properties of the polymer. DeJuneas does not show using an antioxidant in his composition. Mills shows that it is known to carry out a method wherein a new composition is formed using an antioxidant selected from hindered phenolics (Abstract). It would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made to use Mills' hindered phenolics in DeJuneas' polyethylene in order to stabilize the neat polyethylene (See Mills, Column 1, lines 42-43).

### ***Response to Arguments***

Applicant's arguments, see the paper filed 28 August 2006, with respect to claims 2, 13, 18, and 19 have been fully considered and are persuasive. The rejection of claims 18 and 19 has been withdrawn.

Applicant's arguments, see the paper filed 28 August 2006, with respect to the rejection(s) of claim(s) 1, 3-12, and 14-17 under Debras and Hancock have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of DeJuneas.

### ***Allowable Subject Matter***

Claims 18-19 are allowed.



Claims 2 and 13 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

**Conclusion**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Monica A. Huson whose telephone number is 571-272-1198. The examiner can normally be reached on Monday-Friday 7:30am-4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christina Johnson can be reached on 571-272-1176. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Monica A Huson

November 13, 2006



CHRISTINA JOHNSON  
SUPERVISORY PATENT EXAMINER

11/13/06